

PTERIS VITTATA (PTERIDACEAE), A NEW FERN FOR TEXAS

Pteris vittata L., commonly known as ladder brake, Chinese brake, or Chinese ladder brake, is an Asian native well known as an escape from cultivation in coastal areas of the southeastern United States. The species was not included in Small's 1903 or 1913 treatments of the southeastern flora. Small later (1938) treated the species as *Pycnodoria vittata* (L.) Small, indicating that it had been collected in Florida many years previously and that during the 1930s it was abundant at several Florida localities (e.g., Everglades). He also indicated that it was established in Alabama, Louisiana, the West Indies, and South America. Currently, *Pteris vittata* is common in southern Florida where it can be found in almost every habitat with exposed limestone (e.g., pinelands) and on a variety of man-made calcareous substrates (e.g., sidewalks, buildings, old masonry) (Nauman 1993). Radford et al. (1968) cited a South Carolina record and noted that it was a rare escape. Nauman (1993) mapped the species as occurring from southern South Carolina south to Florida and west to eastern Louisiana; he also showed isolated occurrences in southern California and the District of Columbia.

Pteris vittata was not included in the Texas flora by Correll (1956, 1966), Correll and Johnston (1970), Stanford (1976), Hatch et al. (1990), or Jones et al. (1997), nor has it been reported from Oklahoma (Taylor & Taylor 1994). It is now known from Texas based on the following collection:

Voucher collection: Texas. San Saba Co.: ca. 3 mi N of Bend, on the Edwards Plateau, growing from a limestone boulder with *Adiantum capillus-veneris* L. at edge of Rough Creek (tributary of the Colorado River), 6 Nov 1987, J.W. Stanford 5308 (BRIT, HPC, SPLT).

Subsequent flooding has destroyed the site. The identification was confirmed by Jim Blassingame (South Plains College, Levelland, TX).

Of the five *Pteris* species in the United States (most occurrences are in the southeastern part of the country), four are introduced and one, *P. babamensis* (J. Agardh) Fée, is native to south Florida (Nauman 1993). Besides *P. vittata*, only *P. multifida* Poir. (spider brake, Chinese brake, Huguenot fern), is known from Texas. This widely cultivated native of China is naturalized in east and southeast Texas and the Rio Grande Valley (Correll & Johnston 1970; Hatch et al. 1990). The deeply palmately 3-divided pinnae (at least some) of *P. multifida* are quite distinctive.

Pteris vittata can be recognized and distinguished as follows: stems short-creeping, stout, densely scaly; leaves clustered, strictly 1-pinnate (the pinnae without lobes or divisions), 0.3–1 m long including petiole; pinnae 12–20(–30) pairs per leaf, linear-lanceolate to linear-attenuate, 2–18 cm long, 4–9 mm wide, long-attenuate or sharply acute apically, asymmetrically cordate to widened or truncate basally; serrulate marginally; distal pinnae conspicuously

longer than proximal pinnae (leaf blades thus oblanceolate in outline) with the terminal pinna typically longest; petioles and often rachises densely scaly; sori usually of a continuous narrow band near the margins of the abaxial surface of the pinnae (thus most of the abaxial blade surface exposed) (Long & Lakela 1971; Nauman 1993; Smith & Lemieux 1993). The species is a tetraploid, with $2n = 116$ (Nauman 1993). An illustration and a detailed description are available in Small (1938). A recent treatment of *Pteris*, including a key to taxa occurring in the United States and an illustration of *P. vittata*, can be found in Nauman (1993).

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